

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re the Application of: ) Group Art Unit: 1723  
HOFF ET AL. )  
Serial No.: 10/633,463 ) Examiner: Soohoo, T.  
Filed: July 31, 2003 ) Confirmation No. 5445  
Atty. File No.: 7241-1 ) APPEAL BRIEF (37 C.F.R. 41.37)  
) ELECTRONICALLY FILED  
)

For: METHOD AND APPARATUS FOR  
ADMINISTERING MICRO-INGREDIENT  
FEED ADDITIVES TO ANIMAL FEED  
RATIONS

Mail Stop Appeal Brief – Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313

Dear Sir:

Appellant submits this brief in furtherance of the Notice of Appeal filed concurrently herewith. The fee of \$500.00 set forth in 37 C.F.R. §1.17(c) for filing a brief in support of an appeal may be charged to Deposit Account No. 19-1970. Although no additional fees are believed due, please charge any underpayment or credit any overpayment to Deposit Account No. 19-1970.

## TABLE OF CONTENTS

The sections of this Brief, as specified in 37 C.F.R. §41.37 are as follows:

I.	REAL PARTY IN INTEREST (37 C.F.R. §41.37(c)(1)(I) .....	1
II.	RELATED APPEALS AND INFERENCES (37 C.F.R. §41.37(c)(1)(II).....	1
III.	STATUS OF THE CLAIMS (37 C.F.R. §41.37(c)(1)(iii) .....	1
IV.	STATUS OF AMENDMENTS (37 C.F.R. §41.37(c)(1)(iv) .....	1
V.	SUMMARY OF CLAIMED SUBJECT MATTER (37 C.F.R. §41.37(c)(1)(v).....	2
VI.	GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL (37 C.F.R. §41.37(c)(1)(vi).....	5
VII.	ARGUMENT (37 C.F.R. §41.37(c)(1)(vii).....	5
VIII	CLAIMS APPENDIX (37 C.F.R. §41.37(c)(1)(viii).....	9
IX	EVIDENCE APPENDIX (37 C.F.R. §41.37(c)(1)(ix) .....	9
X	RELATED PROCEEDINGS APPENDIX (37 C.F.R. §41.37(c)(1)(x) .....	9

I.     REAL PARTY IN INTEREST (37 C.F.R. §41.37(c)(1)(I))

The real party in interest in this application is the assignee, Lextron, Inc. An assignment, whereby the inventors assigned all rights in the present continuation application to Lextron, Inc., was recorded in the U.S. Patent and Trademark Office on July 31, 2003 at Reel No. 014366, Frame No.0874. The terms "Appellant" and "Applicant" in this Appeal Brief mean Lextron, Inc., unless otherwise indicated.

II.    RELATED APPEALS AND INFERENCES (37 C.F.R. §41.37(c)(1)(II))

There are no related appeals or interferences.

III.   STATUS OF THE CLAIMS (37 C.F.R. §41.37(c)(1)(iii))

The status of the claims in this application is as follows:

A.     Total Number of Claims: 7

B.     Status of Claims:

1.     Claims canceled: 7-22 and 24-32.
2.     Claims withdrawn from consideration but not canceled: none.
3.     Claims pending: 1-6 and 23.
4.     Claims allowed: none.
5.     Claims rejected: 1-6 and 23.

C.     Claims on Appeal: Claims 1-6 and 23.

IV.    STATUS OF AMENDMENTS (37 C.F.R. §41.37(c)(1)(iv))

In response to the first Office Action dated August 9, 2005, Claim 1 was amended, claims 7-9 were cancelled, Claims 10-22 were withdrawn, and Claims 23-31

were added. In response to the Final Office Action dated December 29, 2005, Applicant filed an RCE, Claim 1 was amended, Claims 10-22 were cancelled, claims 24-31 were withdrawn, and claim 32 was added. In response to the Office Action dated October 26, 2006, Claim 1 was amended, Claim 3 was amended, and Claim 32 was cancelled. Claims 1-6 and 23 have been twice rejected.

V. SUMMARY OF CLAIMED SUBJECT MATTER (37 C.F.R. §41.37(c)(1)(v))

The following is an explanation of the subject matter defined in each of the independent and dependent claims involved in the Appeal, referring to the specification by page and line number, an/or to the drawings by reference characters. It shall be understood that reference to the specification and drawings is in reference to a preferred embodiment of the invention.

Claim 1: A system for measuring, dispensing and pneumatically delivering micro-ingredients to a feed ration comprising (Figure 1):  
a weigh hopper (24) (page 8, line 20);  
a storage bin (12) including an auger (20) mounted thereto, said auger for metering a desired amount of a micro-ingredient into said weigh hopper (page 8, lines 20-22, and page 9, lines 1-3);  
a scale mounted to said weigh hopper for determining the weight of the micro-ingredient metered into said weigh hopper from said auger, said auger being activated to meter the desired amount of the micro-ingredient based upon weight indicated by said scale (page 9, lines 13-21);

a transport line (34) for delivering the micro-ingredient to the feed ration and to receive the micro-ingredient metered from said auger (page 10, lines 3-10);  
an eductor (46) mounted in line with said transport line (page 10, lines 13-15);  
means (32) for supplying pressurized air through said eductor and through said transport line, wherein said eductor facilitates movement of the micro-ingredient through said means for introducing and through said eductor into said transport line (page 10, lines 18-22); and

a discharge device (38) having an upstream end attached to a discharge end of said transport line, said discharge device further including a housing body (52), an inner tube (62) placed within said housing body, said inner tube communicating with said discharge end for receiving micro-ingredients moving through said transport line, wherein a cylindrical shaped gap defines an open space between an outer surface of said inner tube and an inner surface of said housing body, said inner tube and said body each having a downstream end terminating substantially coterminous with one another, and wherein a flow of liquid is provided through said housing body and then through said cylindrical shaped gap whereby as said micro-ingredients exit said discharge device, said liquid concentrically surrounds said micro-ingredients (Figure 4, Page 13, line 7-22).

Claim 2: A system, as claimed in Claim 1, wherein:

said bin includes a plurality of bins each having a corresponding auger for metering separate micro-ingredients into said weight hopper (Figure 1, page 8 lines 20-22 and page 9 lines 1-4).

Claim 3: A system, as claimed in Claim 1, wherein:

said weigh hopper includes a plurality of weigh hoppers; and

said bin includes a plurality of bins each having a corresponding auger for metering separate micro-ingredients from each of said bins into corresponding weigh hoppers of said plurality of weigh hoppers (Figure 1, page 8, lines 17-19 and page 9, lines 12-21).

Claim 4: A system, as claimed in Claim 3, wherein:

said scale includes a plurality of scales, one scale of said plurality of scales being mounted to each weigh hopper of said plurality of weigh hoppers for separately determining the weight of micro-ingredients in each of said weigh hoppers (Figure 1, page 9, lines 14-17).

Claim 5: A system, as claimed in Claim 3, wherein:

said transport line includes a plurality of transport lines for separately conveying the micro-ingredients, said means for supplying pressurized air communicating with each of said plurality of transport lines thereby causing transport of the micro-ingredients through the plurality of transport lines (Figure 1, page 10, lines 3-12).

Claim 6: A system, as claimed in Claim 5, wherein:

said means for supplying pressurized air includes a plurality of means for supplying pressurized air so that each transport line of said plurality of transport lines has a dedicated means for supplying pressurized air therethrough (page 11, lines 1-9).

Claim 23: A system, as claimed in Claim 1, wherein:

said discharge device further includes a flange (64) connected to the downstream end of said inner tube wherein said flange acts as a nozzle to accelerate liquid flowing in said gap between said inner tube and said housing body (Figure 3, page 13, lines 20-21).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL (37 C.F.R. §41.37(c)(1)(vi))

The issues on appeal are:

A. Whether Claims 1-6 should be rejected under 35 U.S.C. §103(a) as being unpatentable over Winn, Jr. (US 3741533) in view of Fassauer (US 3804303) and Barlow (US 4395131) and Ricciardi (US 4643582).

B. Whether Claim 23 should be rejected under 35 U.S.C. §103(a) as being unpatentable over Winn, Jr. (US 3741533) in view of Fassauer (US 3804303) and Barlow (US 4395131) and Ricciardi (US 4643582) as these references are applied to independent Claim 1 and further in view of Pomerleau (US 2746728).

VII. ARGUMENT (37 C.F.R. §41.37(c)(1)(vii))

A. General:

To establish a prima facie case of obviousness under 35 U.S.C. §103(a), the Examiner must show that: (1) the references teach all of the elements of the claimed invention, (2) the references contain some teaching, suggestion or motivation to combine the references, and (3) the references suggest a reasonable expectation of success. See MPEP §2142. See also In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991); In re Kotzab, 217 F.3d 1365, 55 USPQ2d 1313 (Fed. Cir. 2000).

"There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art." In re Rouffet, 149 F.3d 1350, 1357, 47 USPQ2d

1453, 1457-58 (Fed. Cir. 1998). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, (Fed Cir. 1990) See also MPEP Section 2143.01 (III).

A statement that modifications of the prior art to meet the claimed invention would have been within the ordinary skill of the art at the time the claimed invention was made because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references. Ex parte Levengood, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). See also In re Kotzab, 217 F.3d 1365, 1371 and MPEP Section 2143.01 (IV).

B. Independent Claim 1 Argument:

In the final Office Action dated May 2, 2007, the Examiner combined Winn, Jr., Fassauer, Barlow, and Ricciardi under Section 103. First, it is noted that the Ricciardi reference is not relevant to the presently pending claims since the limitation of providing a fitting and a transverse oriented tube connected to the fitting are limitations that have been deleted from the latest version of amended Claim 1. Therefore, it is not necessary to discuss the Ricciardi reference other than to mention that there is no structure taught in this reference that has any relevance to the presently claimed invention.

With respect to the remaining references, it is asserted that the references do not contain the requisite teaching, suggestion or motivation to be combined, and the references do not suggest a reasonable expectation of success. Beginning first with the Winn reference, this reference is directed to providing a mixing device to form a slurry mixture. One

specific purpose of the mixing device is to provide re-circulation of the slurry such that slurry inlet 26 provides re-circulation of the slurry mixture to the slurry reservoir 12. A dry mix inlet tube 14 is provided along with a hollow member 18 wherein liquid is introduced into the reservoir 12 in the gap or space between the tubular part 16 and the outer surface of the tube 14. The bottom 28 of the tube 14, as well as the bottom end 30 of the tube 16 are submerged within the slurry mixture. As noted at Column 3, Lines 8-17: the particulated material enters the apparatus and passes down the tube 14 to its bottom 28 whereupon it is urged outwardly and downwardly to contact the liquid which is escaping from the end 30 of the tube 16. The violent shearing action as the liquid emerges from the annulus between the tube 16 and the tube 14 hits the baffle plate or bottom of the reservoir and results in turbulence that causes "intimate mixing of the cement with the water at a rapid rate."

Independent Claim 1 covers the embodiment illustrated at Figure 4. In order to alleviate problems associated with production of dust as micro-ingredients are delivered to a feed mixer, it is desirable to provide a liquid interface at the discharge ends of the transport lines. Particularly in high wind conditions, the creation of dust can be problematic. Thus, it is desirable to provide a water curtain that effectively shields the dry micro-ingredients as they enter the feed mixer. As shown in Figure 4, a water curtain is created by the liquid 68 that has been discharged from the discharge device. This embodiment does not contemplate mixing since the purpose of the concentrically arranged members is to create a water curtain - not a slurry. Structurally, the group of concentrically arranged tubular members in the Winn reference are very different, are used a very different purpose, and also achieve a different result. It is particularly noted in the Winn reference

that the tube 14 and tube 16 are not simply separable components but rather, form just a part of the overall invention disclosed therein. Member 22 surrounds tube 16 so that the slurry can be re-circulated to immediately contact the discharged water and particulated material. Thus, there are actually three concentrically arranged members in Winn, and this combination of three elements in the primary reference cannot be modified to disclose the two concentrically arranged members as claimed without some teaching or suggestion within the references. As noted above, it is an objective in the Winn reference to immediately cause mixing of the introduced particulated material and liquid with the existing slurry mixture. This mixing action absolutely requires that the outer most member 22 be present. Thus, this grouping of three elements in Winn is a prominent teaching away of the present invention. Any use of Winn in an obviousness rejection requires that Winn as the primary reference be first significantly modified before the secondary references can be added. To selectively separate only the tubes 14 and 16 from the Winn reference does not consider the teachings of Winn as a whole and also improperly incorporates a hindsight analysis of the reference. Thus, even if it were obvious to combine Winn with Fassauer and Barlow, Winn is still deficient as a primary reference.

C. Dependent claim 23 Argument:

For Claim 23, the Examiner further combined the Pomerleau reference. In the Pomerleau reference, liquid does not pass in the gap between tube 7 and tube 2 and rather, liquid is introduced to the product stream through the plurality of depending tubes 17 which surround the exit ends of tubes 2 and 7. This reference therefore teaches a very different type of mixing action, but nonetheless one that is not relevant to the present invention.

Any acceleration of the air due to the venturi effect is used to improve mixing, and not to prevent mixing since the orientation of the depending tubes 17 intersects the path of air. Modifying Winn with the Pomerleau reference, clearly detracts from the basic teachings of Winn wherein a slurry mixture is being recirculated. Since the slurry mixture is rather viscous, any air entering the inner tube to produce a venturi effect would most likely result in clogging of the recirculation system in Winn. Because of the required recirculation in Winn, it would appear that it is necessary to maintain a steady flow of liquid without constricting the flow by use of air, thus adding the teaching of Pomerleau clearly defeats this purpose in Winn. Thus, in reviewing the teachings as a whole, there is simply no motivation to combine Pomerleau with Winn.

VIII    CLAIMS APPENDIX (37 C.F.R. §41.37(c)(1)(viii))

Attached at pages A1-A2 is the Claims Appendix listing the claims involved in this appeal, namely, Claims 1-6 and 23.

IX    EVIDENCE APPENDIX (37 C.F.R. §41.37(c)(1)(ix))

None

X    RELATED PROCEEDINGS APPENDIX (37 C.F.R. §41.37(c)(1)(x))

None

For the reasons given above, Appellant respectfully submits that Claims 1-6 and 23 are in a condition for allowance in this application.

Respectfully submitted,

SHERIDAN ROSS P.C.

By: Brent P. Johnson

Brent P. Johnson  
Registration No.  
1560 Broadway, Suite 1200  
Denver, Colorado 80202-5141  
(303) 863-9700

Date: July 13, 2007

## CLAIMS APPENDIX

1. A system for measuring, dispensing and pneumatically delivering micro-ingredients to a feed ration comprising:
  - a weigh hopper;
  - a storage bin including an auger mounted thereto, said auger for metering a desired amount of a micro-ingredient into said weigh hopper;
  - a scale mounted to said weigh hopper for determining the weight of the micro-ingredient metered into said weigh hopper from said auger, said auger being activated to meter the desired amount of the micro-ingredient based upon weight indicated by said scale;
  - a transport line for delivering the micro-ingredient to the feed ration and to receive the micro-ingredient metered from said auger;
  - an eductor mounted in line with said transport line;
  - means for supplying pressurized air through said eductor and through said transport line, wherein said eductor facilitates movement of the micro-ingredient through said means for introducing and through said eductor into said transport line; and
  - a discharge device having an upstream end attached to a discharge end of said transport line, said discharge device further including, a housing body, an inner tube placed within said housing body, said inner tube communicating with said discharge end for receiving micro-ingredients moving through said transport line, wherein a cylindrical shaped gap defines an open space between an outer surface of said inner tube and an inner surface of said housing body, said inner tube and said body each having a

downstream end terminating substantially coterminous with one another, and wherein a flow of liquid is provided through said housing body and then through said cylindrical shaped gap whereby as said micro-ingredients exit said discharge device, said liquid concentrically surrounds said micro-ingredients.

2. A system, as claimed in Claim 1, wherein:

    said bin includes a plurality of bins each having a corresponding auger for metering separate micro-ingredients into said weight hopper.

3. A system, as claimed in Claim 1, wherein:

    said weigh hopper includes a plurality of weigh hoppers; and  
    said bin includes a plurality of bins each having a corresponding auger for metering separate micro-ingredients from each of said bins into corresponding weigh hoppers of said plurality of weigh hoppers.

4. A system, as claimed in Claim 3, wherein:

    said scale includes a plurality of scales, one scale of said plurality of scales being mounted to each weigh hopper of said plurality of weigh hoppers for separately determining the weight of micro-ingredients in each of said weigh hoppers.

5. A system, as claimed in Claim 3, wherein:

    said transport line includes a plurality of transport lines for separately conveying the micro-ingredients, said means for supplying pressurized air communicating with each of said plurality of transport lines thereby causing transport of the micro-ingredients through the plurality of transport lines.

6. A system, as claimed in Claim 5, wherein:

said means for supplying pressurized air includes a plurality of means for supplying pressurized air so that each transport line of said plurality of transport lines has a dedicated means for supplying pressurized air therethrough.

23. A system, as claimed in Claim 1, wherein:

said discharge device further includes a flange connected to the downstream end of said inner tube wherein said flange acts as a nozzle to accelerate liquid flowing in said gap between said inner tube and said housing body.